

## CLAIMS

### WHAT IS CLAIMED IS:

1. A clipless bicycle pedal system comprising:

2           a spindle;

          first and second engagement components mounted on said spindle adjacent one  
4           another, but forming a gap between at least portions of said engagement components;  
          and

6           first and second biasing members directly coupled to said first and second  
          engagement components, respectively,

8           wherein said biasing members axially force said engagement components  
          towards one another tending to minimize the gap there between;

10          thereby providing a releasable engagement for a shoe-mounted cleat having a  
          projecting latch member sized to be engaged by said gap.

2           2. The pedal system of Claim 1 wherein said gap between said engagement  
          components is continuous, thereby providing a uniformed, infinitely-sided pedal platform for  
          engagement of said cleat projecting latch member around the spindle.

3. The pedal system of Claim 1 wherein said biasing members are springs.

2           4. The pedal system of Claim 1 wherein said engagement components are generally  
          cylindrical.

5. The pedal system of Claim 1 wherein said engagement components are capable of  
rotating on said spindle about its axis.

6. The pedal system of Claim 1 wherein said engagement components are capable of  
side-to-side motion on said spindle, thereby providing the pedal with axial float.

7. The pedal system of Claim 1, said engagement components are similar to one  
another, each comprising a hollow cylindrical core and a flared out portion concentric with and  
radially extending from said core,  
wherein the gap is between the edges of the flared out portions.

8. The pedal system of claim 1, wherein said pedal system comprising:  
engagement components have a hollow cylindrical core and a flared out portion  
concentric with and radially extending from said core, said flared out portions forming  
an engagement trench with said cylindrical core for engaging a cleat on a rider's shoe.

9. The pedal system of claim 1, further comprising:  
a cleat having a projecting latch member sized to engage the gap between the  
pedal first and second engagement components, and the cleat is attachable to a  
conventional bicycle shoe.

10. The bicycle pedal system of claim 8, wherein said cleat further comprises a disk on

2 which said latch is mounted; and

said disk is attachable to the forward portion of the sole of the shoe; and,

4 said disk is configured such that the user may rotate his or her foot while the  
cleat is engaged in the pedal.

11. A clipless bicycle pedal system comprising:

2 a pedal including a spindle;

at least one engagement component mounted on said spindle, said engagement  
4 component having a constant gap entirely around said spindle forming a uniformed  
infinitely sided platform; and

6 a cleat capable of engaging with said gap at any side of said platform.

12. The clipless bicycle pedal system of Claim 11, comprising first and second

2 engagement components mounted on said spindle, wherein said cleat is configured for  
engagement between said engagement components, said components being spring biased to a  
4 closing position wherein the components are forced against one another and said gap is  
minimized.

13. The clipless bicycle pedal system of Claim 11, said engagement component

2 capable of side-to-side motion with respect to the axis of said spindle, providing axial float  
when said cleat is engaged.

14. The clipless bicycle pedal system of Claim 11, said engagement component and  
 2 spindle being formed from titanium.

15. The clipless bicycle pedal system of Claim 11, further comprising a cylindrical  
 2 bearing mounted between said spindle and said engagement component, said cylindrical  
 bearing having a smooth surface for allowing the engagement component to slide with respect  
 4 to the axis of said spindle.

16. The clipless bicycle pedal system of Claim 11, said cleat comprising a latch having  
 2 a wide head that is generally rounded to guide the pedal into engagement position.

17. The clipless bicycle pedal system of Claim 11, said cleat being coupled to a shoe  
 2 worn on a rider's foot, and said engagement components and cleat being configured such that  
 said rider is capable of twisting his/her foot while engaged in said pedal.

18. A method of engaging and disengaging a bicycle shoe to a bicycle pedal  
 2 comprising:

providing a bicycle having a pedal mounted to a spindle with engagement  
 4 components biased together to minimize the gap there between, the gap of constant  
 width around the spindle;

6 providing a shoe-mounted cleat having a projecting member sized to engage the  
 gap between the engagement components;

8            pressing the cleat projecting member against the gap between the pedal  
engagement components anywhere around the spindle, thereby moving of said pedal to  
10 an open position; and

          further pressing said cleat against the pedal to latch said cleat projecting member  
12 thereby engagement component positions to a closed position, wherein substantially  
twisting said cleat projection member to axially force apart said pedal engagement  
14 components thereby widening said gap and allowing said bicycle shoe to disengage  
from said pedal.